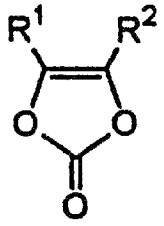
AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions, and listings, of claims in the application.

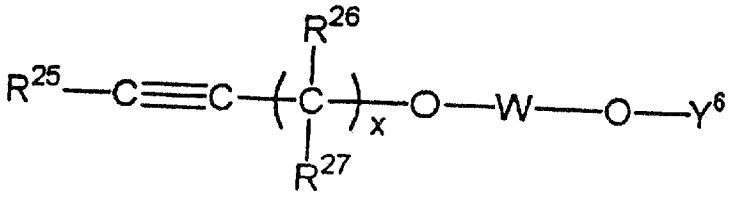
1-12. (Canceled)

13. (Previously Presented) A lithium secondary battery comprising a positive electrode, a negative electrode and a non-aqueous electrolytic solution, wherein the positive electrode comprises a positive electrode composition layer having a density in the range of 3.2 to 4.0 g/cm^3 provided on aluminum foil, said positive electrode composition layer comprising a complex metal oxide of lithium, wherein the negative electrode comprises a negative electrode composition layer having a density in the range of 1.3 to 2.0 g/cm^3 provided on copper foil, said negative electrode composition layer comprising a material capable of absorbing and releasing lithium, and wherein the non-aqueous electrolytic solution comprises an electrolyte salt and a non-aqueous solvent comprising a chain carbonate and a cyclic carbonate selected from the group consisting of ethylene carbonate and propylene carbonate, wherein the non-aqueous electrolytic solution contains a vinylene carbonate compound of formula (I) in an amount of 0.05 to 5 wt.% and an alkyne compound of formula (VI) in an amount of 0.1 to 3 wt.%:



(I)

in which each of R^1 and R^2 independently is a hydrogen atom or an alkyl group having 1 to 4 carbon atoms:



(VI)

in which each of R^{25} to R^{27} independently is a hydrogen atom, an alkyl group having 1 to 12 carbon atoms, a cycloalkyl group having 3 to 6 carbon atoms, an aryl group having 6 to 12 carbon atoms, or an aralkyl group having 7 to 12 carbon atoms, or R^{26} and R^{27} are combined with each other to form a cycloalkylene group having 3 to 6 carbon atoms; x is 1 or 2; W is sulfinyl or oxalyl; and Y^6 is an alkyl group having 1 to 12 carbon atoms, an alkenyl group having 2 to 12 carbon atoms, an alkynyl group having 2 to 12 carbon atoms, a cycloalkyl group having 3 to 6 carbon atoms, an aryl group having 6 to 12 carbon atoms, or an aralkyl group having 7 to 12 carbon atoms.

14. (Previously Presented) The lithium secondary battery of claim 13, wherein the non-aqueous electrolytic solution contains the vinylene carbonate compound in an amount of 0.1 to 3 wt.%.

15. (Currently Amended) The lithium secondary battery of claim 13, wherein ~~the vinylene carbonate compound is vinylene carbonate~~ each of R^1 and R^2 of the formula (I) is a hydrogen atom.

16. (Withdrawn) The lithium secondary battery of claim 13, wherein the non-aqueous electrolytic solution further contains an aromatic compound in an amount of 0.1 to 5 wt.%, said aromatic compound being selected from the group consisting of cyclohexylbenzene, a fluorocyclohexylbenzene compound, biphenyl, terphenyl, diphenyl ether, 2-fluorophenyl phenyl ether, 4-fluorophenyl phenyl ether, fluorobenzene, difluorobenzene, 2-fluorobiphenyl, 4-fluorobiphenyl, 2,4-difluoroanisole, tert-butylbenzene, 1,3-di-tert-butylbenzene, 1-fluoro-4-tert-butylbenzene, tert-pentylbenzene, tert-butyl biphenyl, tert-pentyl biphenyl, a partially

hydrogenated o-terphenyl, a partially hydrogenated m-terphenyl and a partially hydrogenated p-terphenyl.

17. (Withdrawn) The lithium secondary battery of claim 13, wherein the non-aqueous electrolytic solution further contains a mixture in an amount of 0.1 to 5 wt.%, said mixture being selected from the group consisting of a mixture of biphenyl and cyclohexylbenzene, a mixture of cyclohexylbenzene and tert-butylbenzene, a mixture of cyclohexylbenzene and tert-pentylbenzene, a mixture of biphenyl and fluorobenzene, a mixture of cyclohexylbenzene and fluorobenzene, a mixture of 2,4-difluoroanisole and cyclohexylbenzene, a mixture of cyclohexylbenzene and 1-fluoro-4-tert-butylbenzene, a mixture of cyclohexylbenzene and a fluorocyclohexylbenzene compound, a mixture of a fluorocyclohexylbenzene compound and fluorobenzene, and a mixture of 2,4-difluoroanisole and a fluorocyclohexylbenzene compound, wherein a weight ratio of the former:latter in the mixture being from 50:50 to 10:90.

18. (Previously Presented) The lithium secondary battery of claim 13, wherein W of formula (VI) is oxalyl, and Y^6 of formula (VI) is an alkynyl group having 2 to 12 carbon atoms.

19. (Previously Presented) The lithium secondary battery of claim 13, wherein the alkyne compound of formula (VI) is di(2-propynyl) oxalate.